

MATERIAL SAFETY DATA SHEET FERRIC CHLORIDE

DATE REVISED: MARCH 1, 1996

MATERIAL SAFETY DATA SHEET
H & S CHEMICAL CO., INC
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PRODUCT INFORMATION

Product Name: Ferric Chloride Solution
Chemical Name and Synonyms: Iron Chloride Solution
Chemical Family and Formula: Inorganic Salt Solution, FeCl3
CAS Registry Number: 7705-08-0
DOT Proper Shipping Name: Ferric Chloride Solution
DOT Hazard Class and ID Number: Corrosive Material UN 2582

HAZARDOUS INGREDIENTS

Table with 4 columns: Ingredient Name, % by Wt., EXPOSURE Limits, and OSHA Class. Rows include Ferric Chloride, Hydrochloric Acid, and Ferrous Chloride.

PERSONAL PROTECTION AND EXPOSURE CONTROL

Ventilation: Provide good general room ventilation to minimize exposure to vapors or mist.
Respiratory: Use NIOSH/MSHA approved, full face respirator as appropriate. Consult respirator manufacturer to determine appropriate equipment

Eye Protection: Wear splashproof chemical safety goggles. Eyewash fountains recommended in all storage and handling areas. Do not wear contact lenses.

Skin Protection: Wear impervious rubber gloves and protective clothing to minimize skin contact. Full face shield and rubber footwear, acid-resistant hood and full-body suit recommended as appropriate. Safety shower recommended in all storage and handling areas.

HEALTH HAZARD INFORMATION

DANGER--CORROSIVE. MAY CAUSE SEVERE BURNS TO EYES AND SKIN IRRITATION.

FIRST AID MEASURES

Eyes:

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Flush immediately with water for at least 15 minutes. Forcible hold eyelids apart to ensure complete irrigation of eye/lid tissue. Get immediate medical attention.

Skin: Flush immediately with water for at least 15 minutes while removing contaminated clothing. Get immediate medical attention. Wash clothing before reuse.

Ingestion: Drink copious amounts of water. Do not induce vomiting. Get immediate medical attention.

Inhalation: Remove to fresh air. If not breathing, perform artificial respiration. Get medical attention.

Effects of Overexposure: Contact with liquid, mist or vapor can cause immediate irritation or corrosive burns to all human tissue. Severity of the burn is generally determined by the concentration of the solution and duration of exposure. Contact with eyes may cause irritation and tearing and eye tissue discoloration and may result in permanent visual loss unless removed quickly by thorough irrigation with water. Inhalation of concentrated vapor or mist may cause irritation of respiratory tract. Ingestion may cause liver and kidney damage and may be fatal.

Toxicity: Oral LD50 (RAT): 900 mg/kg

PHYSICAL DATA

Appearance and Odor: Reddish brown liquid, slight odor of iron/acid.

Solubility in Water: Complete

Vapor Pressure: Negligible

Specific Gravity (H2O=1): 1.41 at 20 C

Evaporation Rate (Butyl Acetate=1): > 1

Boiling Point: 225 F

Melting Point Deg C (approx): 22 F

HANDLING AND STORAGE PRECAUTIONS

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- *Protect container from physical damage.
- *Do not strike containers or fittings with tools or hard objects.
- *Keep container closed and dry.
- *Store away from heat and oxidizing agents.
- *Wash thoroughly after handling.
- *Emptied container may retain vapor and product residues.

REACTIVITY DATA

Conditions to Avoid:
Material is stable when properly handled. Material is acidic and corrodes most metals. Avoid contact with strong alkalis and oxidizers.

Hazardous Decomposition Products:
Decomposition/polymerization will not occur.

FIRE AND EXPLOSION HAZARDS

Flash Point Not Flammable

Fire Fighting and Personal Protection:
Wear self-contained breathing apparatus and full protective clothing as appropriate for surrounding fire. Cool exterior of storage tanks.

Extinguishing Media:
Use water spray, fog, foam, dry chemicals, CO2 or other agents as appropriate for surrounding fire.

Unusual Explosion Hazards:
None.

SARA TITLE III HAZARD CATEGORIES AND LISTS

Product Hazard Categories		Lists	
Chronic Health	YES	Pressure Hazard	NO
Acute Health	YES	Reactivity Hazard	YES
Fire Hazard	NO	Extremely Hazard Sub.	NO
		CERCLA Hazard Sub.	YES
		Toxic Chemicals	YES

NFPA-HMIS RATINGS

Health 3
Flammability 0
Reactivity 0
Personal protection to be supplied by user depending upon use conditions.

CANADIAN WHMIS CLASSIFICATIONS
D-1B; E

ENVIRONMENTAL PROTECTION

Spill Control:
Utilize full protective clothing including boots and protective equipment as appropriate. Contain spill in order to prevent contamination of water way; neutralize with lime or soda ash.

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Flush with water in accordance with applicable regulations to waste treatment system. Spills of 1,000 lbs. or more must be reported to the National Response Center (800) 424-8802.

Waste Disposal:

Dispose of spilled, neutralized, or waste product, contaminated materials in accordance with all local, state and federal regulations
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Date of latest revision - March 1, 1996

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